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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/895,876	07/02/2001	Taylor Pursell	46104	5376

20736 7590 10/01/2002  
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WASHINGTON, DC 20036-3307

EXAMINER

CLARDY, S

ART UNIT	PAPER NUMBER
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1616

DATE MAILED: 10/01/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/895,876

Applicant(s)

Pursell et al

Examiner

S. Mark Clardy

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jun 12, 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-200 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-200 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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Claims 1-200 are pending in this application which claims the benefit under 35 USC 119(e) of US Provisional Applications No. 60/216,162, and 60/254,178, filed July 3, 2000, and December 11, 2000, respectively.

Applicants' claims are drawn to controlled release agricultural absorbent compositions (claims 1-122, 142-144) and methods of making them (claims 123-141, 145-200) comprising:

- 1) absorbent particulate material with 10-200  $\mu$  diameter capillaries/voids  
claim 2+: expanded or exfoliated (claim 63) perlite, shredded newspaper, saw dust, cotton lint, ground corn cobs, corn cob flour, Metrecz absorbent, diatomaceous earth.
- 2) agricultural materials (optionally with an interspatial blocker<sup>1</sup>, claim 35-49)  
fertilizers (claims 7-14, 23-31): NPK, micronutrients, secondary nutrients, nitrification regulators<sup>2</sup>, growth regulators<sup>3</sup>  
insecticides (claim 32): OO-diethyl O-(2-isopropyl-6-methyl-4-pyrimidinyl)phosphorothioate  
herbicides (claim 33): 2,4-D  
fungicides (claim 34): ferric dimethyldithiocarbamate

The capillary/void spaces are impregnated (40-95%) with the agricultural materials.

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<sup>1</sup>E.g., plant starches, protein gels, glues, gums, crystallizing compounds (sodium silicate, phosphate cements, calcium oxide cements, hydraulic cements: claim 44), gelling clays, synthetic gel forming compounds.

<sup>2</sup>Claim 14: 2-chloro-6-trichloromethylpyridine, sulfathiazole, dicyandiamide, thiourea, guanythiourea

<sup>3</sup>Claim 30: potassium azide, 2-amino-4-chloro-6-methylpyrimidine, N-2,5-dicorphenyl succinamide, 4-amino-1,2,4-triazole hydrochloride

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Claim 30 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The chemical names appear to be incorrect: i.e., "dicorphenyl", "...1, and 2,4-triazole".

Applicants have filed an eight page IDS which will be considered, initialed, and returned when applicants have pointed out which of the many references they consider to be the closest art. Patent applicant has a duty not just to disclose pertinent prior art references but to make the disclosure in such a way as not to "bury" it within other disclosures of less relevant prior art. Golden Valley Microwave Foods Inc. 24 USPQ2d 1801. Applicant has an obligation to call the most pertinent prior patent to the attention of the Patent Office in a proper fashion and to attempt to patentably distinguish his claimed invention from the disclosure of the patent. Penn Yan Boats, Inc. 175 USPQ 260. The references discussed below are cited on the IDS, and are therefore not provided with this office action.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-200 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Huber (US 4,657,582), Huber (US 4,923,506), Wilson (US 4,889,747), Lloyd et al (US 5,739,081), and Turnblad et al (US 5,876,739).

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Huber '582 teaches compositions comprising granular products in which biologically active agents (herbicides, insecticides, etc.: col 3, lines 10-26) are entrapped in a polymeric matrix (col 1, lines 63-68, col 2). Optional filler materials include diatomites, attapulgites, bentonites, perlites, vermiculites, corn cob grits, wood flour, etc. (col 3, lines 5-9).

Huber '506 teaches granular controlled release systems for biologically active agents comprising biologically active agents (herbicides, insecticides, etc.: col 3, lines 10-23) are entrapped in a polymeric matrix (col 1-2). Optional filler materials include diatomites, attapulgites, bentonites, perlites, vermiculites, corn cob grits, wood flour, etc. (col 2, lines 64-68).

Wilson teaches the utility of expanded perlite for making granular biocidal compositions. Any known biocide may be used (col 7, lines 1-10), in addition to various other additives.

Lloyd et al teach water dispersible granules (Abstract) in which biologically active substances (herbicides, insecticides, etc.: col 3, lines 19-56) are loaded into the absorbent granules which are made of finely divided particulate material such as bentonite, kaolin, attapulgit, diatomaceous earth, silicates, perlites, etc. (col 4, lines 8-47).

Turnblad et al teach insecticidal seed coatings comprising polymeric binders, insecticide, and a filler (abstract). The binder provides voids or spaces which are occupied by the insecticide and filler (col 3, lines 23-44). Fillers include wood flours, clays, diatomaceous earth, inorganic solids, clays, perlite, vermiculite, etc. (col 3, lines 45-65).

One of ordinary skill in the art would be motivated to combine these references because they disclose the utility of adding the same inorganic filler materials to pesticidal compositions.

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Thus it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to have combined absorbent particulate materials and agriculturally active agents in a single composition because the prior art teaches that applicants' particulate materials were known fillers in biocidal (i.e., herbicidal, insecticidal) compositions. It would appear that filling voids in such filler materials would occur upon mixing whether the prior art refers to such an effect or not.

No unobvious or unexpected results are noted; no claim is allowed.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103c and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is (703) 308-4550.



**S. Mark Clardy**  
**Primary Examiner**  
**AU 1616**

September 27, 2002